

Remarks

Claims 3, 5, and 7 stand rejected under 35 USC §112 second paragraph as failing to particularly point out and distinctly claim the subject matter regarded as the invention. Claim 3 is rejected over the abbreviation "CV." Claims 5 and 7 are rejected as lacking antecedent basis for the terms "the plasticizer" and "the total molecular weight of the acyl groups per glucose unit," respectively. Claims 3, 5, and 7 have been amended to correct the abbreviation and antecedent basis. In light of those amendments, the Applicants respectfully request reconsideration and withdrawal of the rejection.

Claims 1-7 stand rejected under 35 USC §102(b), and alternatively under § 103(a), as either anticipated by or obvious in view of Maurer. The Applicants respectfully submit that Maurer fails to explicitly or implicitly disclose all of the subject matter of Claims 1-7 and also fails to teach or suggest the subject matter of those claims as well. Reasons are set forth below.

The rejection states that Maurer teaches a melt-blown non-woven comprising a cellulose ester fiber with a mean diameter of less than about 10 microns and a degree of substitution ranging from 1.5-3.0. The Applicants note that the polymer of Maurer is a cellulose acetate with only a branched acetyl unit. In sharp contrast, the Applicants' fabric comprises a cellulose acetate propionate. This important difference makes it possible to employ a melt-spinning process as performed by the Applicants, as opposed from the quite different melt-blown of Maurer. This difference is particularly important since it enables the Applicants to obtain a continuous filament with a small value of CV through the melt-spinning process. Thus, Maurer does not anticipate Claims 1-7. Also, since Maurer uses completely different processing

technology, Maurer leads those skilled in the art away from the Applicants' claimed fabric in a completely different direction. Thus, Maurer does not render Claims 1-7 obvious either.

The rejection also states that Maurer discloses a melt-blown non-woven comprising a cellulose ester fiber, which inherently possesses the same characteristics. The Applicants respectfully submit that the cigarette filter disclosed in Maurer does not inherently possess the same properties because Maurer teaches a distinct process which results in a distinct composition.

The Applicants' Specification teaches that a fabric manufactured from a composition comprising 70 to 95 wt % of the cellulose mixed ester and 5 to 20 wt % of a water-soluble plasticizer results in the claimed desirable fiber characteristics, such as a strength of 1.3 - 4 cN/dtex. As discussed in the Applicants' Specification, "a content of 70 wt % or more means that the fiber contains a large amount of a high-strength component, serving to avoid troubles such as thread breakage during melt spinning." (See paragraph [0039] of the Applicants' Specification.) The Applicants also teach that a hollow fiber for a filter produced from cellulose acetate containing as large as 20% of plasticizer suffers from decreased strength of the fiber, whitening, and a decrease in fastness, thus making the fiber inappropriate as material for clothing. (See Applicants' Specification, paragraph [0004].)

As an example, the Applicants invite the Examiner's attention to Example 4 and Comparative Example 2. Example 4 was prepared from 82 wt % of cellulose acetate propionate and 18 wt % of polyethylene glycol resulted in a fiber with a strength of 1.5 cN/dtex. (See paragraph [0102] and Table 1 of the Applicants' Specification.) In contrast, Comparative Example 2 was prepared with the same procedure at Example 4, except that it used 70 wt % of cellulose acetate propionate with 30 wt % of polyethylene glycol. Comparative Example 2

produced a fiber that possessed a strength of only 0.7 cN/dtex and a completed fabric that could be torn easily by hand. (See paragraph [0106] and Table 1 of the Applicants' Specification.) The weak strength of this fabric indicates that it would not serve as suitable material for clothing.

Similar to the composition prepared in Comparative Example 2, Maurer teaches a ratio of cellulose fiber to softener by weight of 2:1 to 1:4, which corresponds to a cellulose fiber content of a content of 66.7 wt % or less. (See Maurer, col. 5, ln. 21-22.) Thus, like Comparative Example 2, Maurer teaches a process of manufacturing a cellulose-based fabric that results in a fiber that very likely does not possess a strength of 1.3 - 4 cN/dtex and is unsuitable as a fabric for clothing.

The value of CV in Claim 3 is quite different from Maurer, even though Maurer may have a relatively close value of a glass transition temperature or strength. The CV is a value of $((\text{standard deviation})/(\text{mean value}) \times 100)$, and the Applicants' CV value is not greater than 10%. That is quite uniform for a thickness of a fiber.

The process of Maurer is a melt-blown process, wherein a fiber is blown by a high pressure air. The resulting filament is not uniform or is discontinuous by breakage.

Comparative Example 4 in the Applicants' Specification shows a fabric of a cellulose acetate propionate with plasticizer of 25 wt% by a melt-blown process, which corresponds to Maurer. The CV is a large value of 30% in comparison with the claimed CV. Thus, it is not suitable for a fabric for clothing.

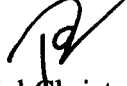
In the case of poor uniformity (i.e., a large CV value), it is difficult to produce a fabric for clothing and in any event results in poor uniformity of the surface due to thick and thin filaments, even if a fabric is produced. Thus, Maurer is differing from the claimed subject matter.

This is important because a rejection based on inherency requires that the inherent characteristic must “necessarily” be present. It is not enough that it could be or might be present. The Applicants have factually demonstrated that it is unlikely the allegedly inherent characteristic is present. Thus, the rejection does not rise to the required “necessarily” present standard to establish inherency under §§ 102 and/or 103.

Accordingly, in light of the distinct properties of the fabric recited in the rejected claims, the Applicants respectfully submit that Claims 1-7 are neither anticipated by nor obvious in view of Maurer. Reconsideration and withdrawal of the rejections is respectfully requested.

In light of the foregoing, the Applicants respectfully submit that the entire Application is now in condition for allowance, which is respectfully requested.

Respectfully submitted,



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